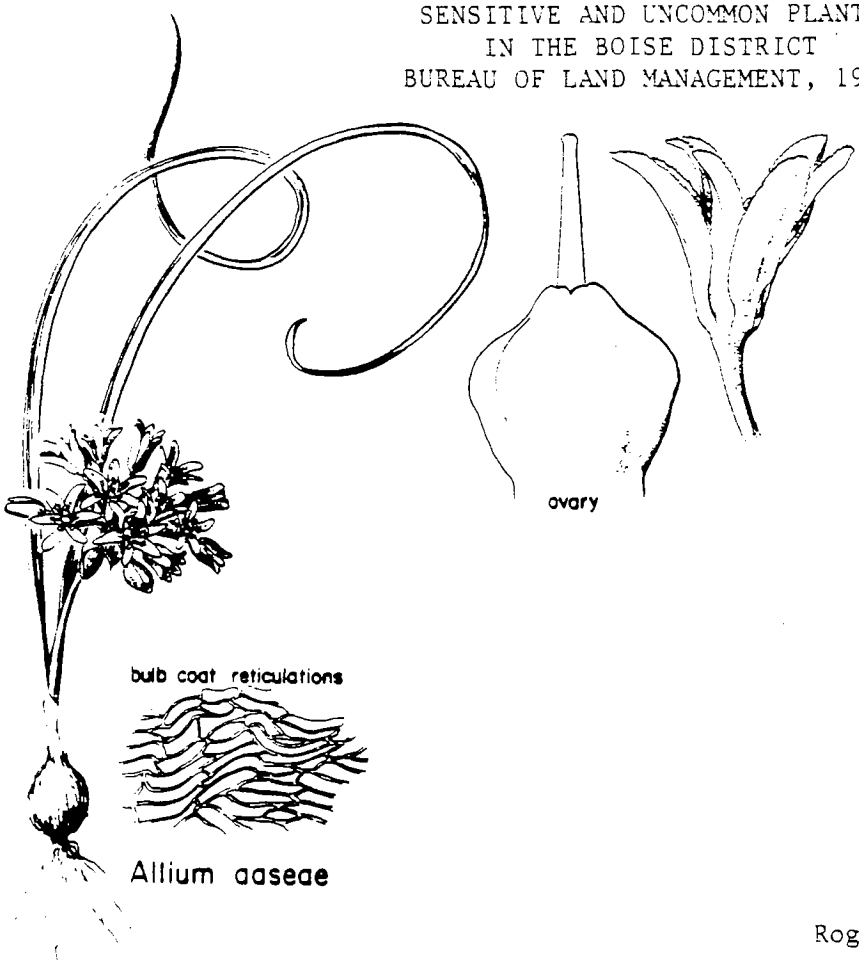
IDAHO BLM

TECHNICAL BULLETIN

SENSITIVE AND UNCOMMON PLANTS
IN THE BOISE DISTRICT
BUREAU OF LAND MANAGEMENT, 1986



by

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INTRODUCTION

This study was undertaken to collect basic information and exact locations of sensitive and uncommon plants on public lands in the Boise District of the Bureau of Land Management (BLM). This information will be used in preparation of a Resource Management Plan (RMP) for the Cascade Resource Area.

Endangered is defined in Sec 3(4) of the Endangered Species Act of 1973 as "any species which is in danger of extinction throughout all or a significant portion of its range...". Threatened is defined in Sec 3(15) as any species which is likely to become an endangered species within the forseeable future throughout all or a significant portion of its range. Most species of concern in this study are listed on the Federal Register on June 1, 1976, or the Provisional List of Rare, Threatened and Endangered Plants in Oregon. Also considered were those plants thought to be threatened, endangered or uncommon by The Rare and Endangered Plant's Technical Committee, Idaho Natural Areas Council. Sensitive species are all species either on the Federal list or on the State Watch list which are protected and of special concern by the BLM. It is Bureau policy to give equal treatment to plants on either the local State Sensitive lists or the Federal lists.

This 1986 report, Sensitive and Uncommon Plants Inventory Report for the Boise District Bureau of Land Management, compliments all earlier Endangered and Threatened plant reports.

A. Dr. Pat Packard, professor of Biology, College of Idaho, Caldwell, Idaho. Dr. Packard verified all my field collections and supplied comparison material when possible. The Herbarium at the College of Idaho has specimens on file of most species considered in this report, including various different locations.

B. Bob Steele, Research Forester, U.S. Forest Service, Intermountain Forest and Range Experimental Station, 316 E. Myrtle St., Boise, Idaho. Bob Steele's files of collection data and the experimental station's herbarium were consulted. The experimental station's herbarium also has specimens of most species considered in this report.

C. The New York Botanical Gardens Herbarium also has specimens of most species considered in this report. Particularly helpful was Dr. Rupert Barneby's identification and comments on Astragalus species.

D. Dr. Douglass M. Henderson - Department of Biological Sciences, University of Idaho, Moscow, Idaho has specimens of most species considered in this report.

E. Klaus Lackschewitz, Department of Botany, University of Montana, Missoula, MT.

F. Dr. Sherman Preece, curator of the University of Montana's Botany Department Herbarium, and chairman of the Department of Botany.

G. Also consulted was the BLM Boise District Herbarium in Boise, Idaho. Specimens collected in the 1979-85 season are on record at the district herbarium.

H. Idaho Natural Heritage Data Bank, 4696 Overland Rd., Boise, ID 83705, (208)334-3402.

LISTS OF SENSITIVE AND UNCOMMON PLANTS
(WITH AUTHORS LISTED) IN S.W. IDAHO

Legend

1. Allium aaseae Ownbey
2. Artemisia packardiae Grimes & Ertter
3. Artemisia papposa Blake & Cronq.
4. Astragalus atratus Wats. var. owyheensis (Nels. & Macbr.) M.E. Jones
5. Astragalus calycosus Torr.
6. Astragalus camptopus Barneby
7. Astragalus iodanthus Wats. var. vipereus Barneby
8. Astragalus mulfordiae M.E. Jones
9. Astragalus nudisiliquus Nels.
10. Astragalus purshii Doug. var. ophiogenes Barneby
11. Astragalus sterilis Barneby
12. Astragalus vallaris Jones
13. Astragalus yoder-williamsii Barneby
14. Camassia cusickii Wats.
15. Carex aboriginum M.E. Jones
16. Chaenactis cusickii Gray
17. Cryptantha propria (A. Nels. & Macbr.) Payson
18. Cymopterus acaulis (Pursh.) Raf. var. greenleyorum Grimes & Packard
19. Cymopterus corrugatus
20. Dimeresia howellii Gray
21. Draba douglasii Gray
22. Eatonella nivea (D.C. Eat.) Gray
23. Enceliopsis nudicalius (Gray) A. Nels.
24. Eremocarpus setigerus (Hook.) Benth
25. Erigeron disparipilus Cronq.
26. Erigeron latus (Nels. & Macbr.) Cronq.
27. Eriogonum ochrocephalum Wats. sceptrum Reveal
28. Eriogonum salicornoides Gandg.
29. Eriogonum shockleyi Wats. [(shockleyi) Reveal] in edit
30. Eriogonum thymoides Benth.
31. Glossopetalon nevadense Gray
32. Gymnosteris parvula Heller
33. Gymnosteris nudicalius Gooding
34. Glyptopleura marginata D.C. Eat.
35. Haplopappus radiatus (Nutt.) Cronq.
36. Hackelia ophiobia Carr
37. Ivesia baileyi Wats.
38. Langloisia puncata Gooding
39. Lepidium davisii Rollins
40. Leptodactylon glabrum Patterson & Yoder-Williams Syst. Bot. 1984
41. Lomatium hendersonii Coult. & Rose
42. Lupinus brevicalius Wats. (color variety) Barneby
43. Lupinus lyallii Gray subsp. washoensis Dougl.
44. Lupinus uncialis Wats.
45. Machaerocarpus californicus (Torr.) Small (small form)
46. Malacothrix glabrata Gray
47. Malacothrix torreyi Gray

48. Mentzelia mollis Peck
49. Mentzelia torreyi Gray
50. Nemacladus rigidus Curran.
53. Pediocactus simpsonii (Engelm.) Britt. & Rose var. robustior Coult.
54. Penstemon perpulcher A. Nels.
55. Periphyllum ramosissium Nutt.
56. Petrophytum caespitosum (Nutt.) Rydb.
57. Phacelia lutea (H. & A.) J.T. Howell var. clava Cronq.
58. Phacelia minutissima Henderson
59. Pinus flexilis James
60. Primula cusickiana Gray
61. Ranunculus andersonii Gray
62. Rhysopterus plurijugas Coult. & Rose
63. Stipa webberi (Thurber) B.L. Johnson
64. Stylocline filaginea Gray
65. Texosporium sancti-jacobi (Tuck.) Nadv.
66. Trifolium owyheensis Gilkey

I. SENSITIVE PLANTS

II. UNCOMMON PLANTS

a. Plants present in the Owyhee Resource Area.

b. Plants present in the Bruneau Resource Area.

TABLE OF COMMON NAMES

TABLE OF COMMON NAMES (con't.)

Explanation of Information on Individual Species

I. Latin name and common name

II. Family:

III. Status:

IV. Known Locations:

V. Soil Type:

VI. Habitat and Ecology:

VII. Remarks:

VIII. Hazards:

IX. Management Recommendations:

I. Allium aaseae (Aase's Onion)

II. Family: Liliaceae

III. Status: Federal Category I recommended for threatened status

IV. Known Locations:

Idaho: Gem County:

a. T. 6 N., R. 1 W., Sec. 1, 2, 3, 10, 11, 12 Sand Hollow

b. T. 5 N., R. 1 E., Sec. 22

c. T. 4 N., R. 2 E., Sec. 7, Seaman Gulch

d. T. 6 N., R. 1 W., Sec. 21, 22, 23 Pearl Mining Claims

e. Numerous sites are known from private property but none are protected.

V. Soil Type: Lolilita coarse loamy sand.

VI. Habitat and Ecology: Allium aaseae is a small perennial onion growing in bare soil with a sandy gravel surface soil in a Purshia -- Eriogonum association within the sagebrush -- grassland zone. Between 2850' and 4400' elevation. Usually found on or near ridgetops with 60-75%+ slopes which receive a lot of sunshine. It can also be found on South, East, and West facing slopes which receive abundant and early morning sun. It is a narrow endemic confined to the area NW of Boise, Idaho. It is a narrowly edaphic plant requiring a specific substrate and texture. It is edaphic to course silica sand. It's seeds requiring a cold wet stratification and cold germination in the dark.

VII. Remarks: This onion is very frost resistant and can be found sprouted in February. It is a unique species ecologically and physiologically. It is apparently on the decline for several reasons. It's known home range is experiencing an invasion by Medusa head ryegrass, cheatgrass, skeleton weed, ORV traffic, and urbanization. It's frost hardiness may be an important feature in the future for genetic engineering with the cultivated onion. The Treasure Valley is known as an excellent seed producing area for cultivated onions. Also grasshopper spraying could adversely affect its polinators and the resultant seed production of this unique onion. There is currently some interest in hybridizing this onion with the commercial varieties. This onion occurs in several locations on private land.

VIII. Hazards: Dirt bikes traveling on and over ridgetops with steep slopes damage A. aasae by displacing its loose, sandy substrate. Late season use by snowmobiles also damages some onion sites on the Boise foothills. Mining of sand at the Unimin Mine site, urbanization, and the recent competition with invasion by annual weedy grasses destroys the onion's habitat.

IX. Management Recommendations: Allium aaseae on public lands needs monitoring, surveying for more locations, and protection from hazards. Sites on public land should be given full protection.

I. Artemisia packardiae Grimes and Eritter (Packard's sagebrush)

II. Family: Compositae

III. Status: Idaho's State Sensitive list

IV. Known Locations:

Idaho: Owyhee County:

T. 30 S., R. 41 E., Sec. 21

T. 28 S., R. 41 E., Sec. 14

T. 15 S., R. 4 W., Sec. 15

T. 15 S., R. 4 W., near Junction of Red Canyon

On 2 side drainages of the South Fork of the Owyhee River

Little Jacks Creek RNA

The whole East Fork of the Owyhee River

Cottonwood Creek of Big Jack's drainage

T. 10 S,. R. 3 E., Sec. 27

Deep Creek off the Owyhee River

Oregon: Malheur County:

T. 28 S., R. 41 E., Sec. 14

Leslie Gulch, Grimes & Eritter

T. 34 S., R. 46 E., Sec. 35, RR #220

R. 2 N., R. 46 E.

Nevada: Humboldt County:

North Fork of the Humboldt River

Elko County:

Upper headwaters of the South Fork of the Owyhee River

V. Soil Type: Volcanic rhyolitic cliffs.

VI. Habitat and Ecology: Artemisia packardiae grows in vertical rhyolitic cliffs along the Owyhee River. It is found on the side of cliffs which makes collecting and noticing it difficult.

VII. Remarks: This plant is restricted to the Owyhee and Humboldt drainages but more work will be needed before its biology is properly understood. It appears to be a narrow endemic. The proper taxonomic position of this taxon may be a variety of A. michauxiana Bess. The Bruneau River contains a taxon which is similar but its taxonomic position is unclear. Also, portions of the Main Snake River upstream from Twin Falls, Idaho, contain a related taxon. It needs further collecting and taxonomic attention.

VIII. Hazards: Dam developments.

IX. Management Recommendations: Protect the known locations in the Owyhee Resource Area. Also more work on the other forks of the Owyhee River should be undertaken to establish the range of this taxon. More collections from the Bruneau River should also be made. Collections of the plant in flower are needed for taxonomic studies. Most of the above collections are of plants without flowers.